

**REMARKS**

The Final Office Action mailed August 25, 2005 has been received and reviewed. Claims 1-19 and 21-25 are currently pending in the application. Claims 12-19 and 22-25 stand rejected. Claims 12 and 15 are amended herein. Claims 1-11, 13, 16 and 21 are cancelled herein. Claim 26 and 27 are added. Amendments have been made without prejudice or disclaimer. No new matter has been added. Reconsideration is respectfully requested.

**Claim rejections—35 U.S.C. § 112, first paragraph**

Claim 12 and 16 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention at the time of filing. More particularly, the Office asserts that the specification does not provide a written description of any suicide gene. Furthermore, the Office alleges that there is insufficient written description about the structure associated with function of any peptide “comprising” the sequence VLXDDLLEA (SEQ ID NO: 1) because the term “comprising” is open-ended. Claim 16 has been cancelled, thus, mooted the rejection of this claim. The remaining rejection is traversed for the following reasons.

Possession of the claimed invention may be shown by describing the elements of the claimed invention by using descriptive words, structures, figures, diagrams and formulas. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572, 19 USPQ2d 1961, 1966 (Fed. Cir. 1997). Applicants respectfully submit that the elements of the claimed invention are described in such descriptive terms as to reasonably convey to one of skill in the art that the inventor had possession of the invention at the time of filing.

Amended claim 12 recites, in part, providing an isolated, synthetic or recombinant peptide having up to fifteen (15) amino acids and comprising the sequence VLXDDLLEA (SEQ ID NO: 1), wherein X represents histidine or arginine.

Applicants respectfully submit that the specification contains descriptive words, structures, figures, diagrams and formulas to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention at the time of filing. Specifically, Table 1 describes SEQ ID NOs:14 and 16 which are peptides having up to fifteen (15) amino acids and

comprising the sequence VLXDDLLEA (SEQ ID NO: 1), wherein X represents histidine or arginine. Also, page 15, lines 3-31 of the published PCT application, *inter alia*, describe the identification of the nucleotides and peptides disclosed in Table 1 and.

For the foregoing, applicants submit that that there is written description for amended claim 12. Withdrawal of the rejection of claim 12 is respectfully requested.

**Claim rejections--35 U.S.C. § 112, second paragraph**

Claims 12-18 and 22-25 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being incomplete for missing essential steps. Claims 13 and 16 have been cancelled, thus, mooted the rejection of these claims. The remaining rejection is traversed for the following reasons.

Applicants respectfully submit that amended claim 12 does not omit essential steps or have gaps between steps.

More particularly, amended claim 12 more specifically defines how a cytotoxic T lymphocyte (CTL) is produced using an antigen presenting cell. As described on page 19, lines 13-26 of the published PCT application, HA-1 pulsed antigen presenting cells are used to stimulate autologous unprimed CD8+ T cells. Thus, claim 12 and the specification reasonably convey to one skilled in the art that the inventor had possession of the claimed invention at the time of filing.

As such, amended claim 12 provides a method of producing cytotoxic T-cells. The subsequent steps of restimulating the cytotoxic T-cells and isolating the cytotoxic T-cells are not essential steps, but merely refer to further applications of the produced cytotoxic T-cells.

Therefore, it is respectfully requested that the rejection of claim 12-18 and 22-25 under 35 U.S.C. § 112, second paragraph, be withdrawn.

**Claim rejections—35 U.S.C. 103(a)**

Claims 12-16, 18-19 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakker *et al.* (Cancer Res 55(22):5330-4, Nov. 1995) in view of Goulmy *et al.* (Human Immunology 54:8-14, April 1997) and Van der Haan *et al.* (Science 279(13): 1054-57, Feb. 1998). Claims 13 and 16 have been cancelled, thus, mooted the rejection of these claims. The

remaining rejection is traversed for the following reasons.

Applicants note that a second Certified Copy of the Priority Document was filed with the U.S. Patent and Trademark Office on November 7, 2005. Acknowledgement is respectfully requested.

Applicants respectfully submit that Van der Haan is not a proper prior art reference because it was published in 1998, after the priority date of the current application.

It is affirmed that Bakker and Goulmy do not disclose a peptide having up to 15 amino acids comprising the sequence VLXDDLLEA. It is neither shown nor suggested by any of these references that a cytotoxic T-cell against mHag HA-1 can be produced using a peptide having up to 15 amino acids comprising the sequence VLXDDLLEA as claimed in independent claim 12.

Accordingly, independent claim 12 would not have been obvious, *at the time the invention was made*, over Bakker in view of Goulmy. Also, dependent claims 14, 15, 18-19 and 23-24 are not obvious, *inter alia*, for depending from a non-obvious base claim.

Reconsideration and withdrawal of the rejection of claims 12, 14, 15, 18-19 and 23-24 is respectfully requested.

Claim 17 is rejected as allegedly being unpatentable over Bakker in view of Goulmy and Van der Haan and further in view of Faller *et al.* (J Virology 62(8): 2942-2950, 1988).

However, as previously shown, independent claim 12 is inventive over any combination of Bakker and Goulmy (while Van der Haan is not prior art to the present application). Since claim 17 is dependent on inventive claim 12, claim 17 also involves an inventive step.

Reconsideration and withdrawal of the rejection of claim 17 is respectfully requested.

Claim 25 is rejected as allegedly being unpatentable over Bakker in view of Goulmy and Van der Haan and further in view of Bonini *et al.* (Science 276, 1719-1724, June 1997).

However, as previously shown, independent claim 12 is inventive over any combination of Bakker and Goulmy. Bonini does not, alone or in combination with Bakker and Goulmy, teach or suggest each and every element of independent claim 12. Also, Van der Haan is not prior art to the present application. Therefore, since claim 25 is dependent on inventive claim 12, claim 25 also involves an inventive step.

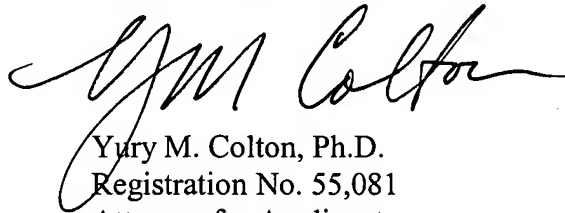
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Reconsideration and withdrawal of the rejection of claim 25 is respectfully requested.

**CONCLUSION**

In view of the foregoing amendments and remarks, the applicants submit that the claims define patentable subject matter and a notice of allowance is requested. Should questions exist after consideration of the foregoing, the Office is kindly requested to contact the applicants' attorney at the address or telephone number given herein.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Yuri M. Colton", is written over the typed name and title.

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